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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,855	07/23/2001	Shoji Nakamura	04558/053001	3890

22511 7590 12/29/2003

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EXAMINER
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RHEE, JANE J

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 12/29/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/911,855

Applicant(s)

NAKAMURA ET AL.

Examiner

Jane J Rhee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Withdrawn Rejections***

1. The 35 U.S.C. 102 rejection of claims 1-4,6-8 anticipated by Sakai et al. made of record in paragraph 1 of Paper 9 has been withdrawn due to Applicant's argument in Paper 14.
2. The 35 U.S.C. 103 rejection of claim 5 over Sakai et al. in view of Watanabe et al. made of record in paragraph 2 of Paper 9 has been withdrawn due to Applicant's argument in Paper 14.

### ***New Rejections***

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 1-4,8 are rejected under 35 U.S.C. 102(e) as being anticipated by Takagi et al. (6539750).

Takagi et al. discloses a molded glass substrate for a magnetic disk comprising an upper and lower principal surfaces and outer surface joining the upper and lower principal surfaces, an inner surface joining the upper and lower principal surfaces, the inner surface defining a through-hole in the a central portion of the substrate (col. 2 lines 20-24) wherein the upper and lower principal surfaces have a small waviness  $W_a$  of no greater than 0.5nm (col. 4 line 15). Takagi et al. discloses that the average surface roughness is no greater than 0.5nm (col. 4 lines 61-62). Takagi et al. discloses that the inner surface is polished (col. 1 line 22). Takagi et al. discloses that the glass substrate has a thickness of 0.3mm to 1.0mm and a diameter of 25.4mm to 88.9mm (col. 5 lines 63-64).

As to the outer surface having a molding free face, Takagi et al. discloses the same process of molding the glass substrate as desired by the applicant therefore it is inherent that the outer surface has a molding free face.

Takagi et al. discloses the same process of molding the glass substrate as desired by the applicant wherein the upper and lower principal surfaces have a small waviness  $W_a$  of no greater than 0.5nm and that the average surface roughness is of no greater than 0.5nm therefore it is inherent that the principal surfaces that have a maximum height no greater than 5.0nm.

Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself.

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Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). This burden is NOT discharged solely because the product was derived from a process not known to the prior art. *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitations; wherein a mirror surface property of molding die is transcribed onto the upper and lower principal surfaces, and an outer diameter satisfies a desired dimensional tolerance by selecting a predetermined volume of a glass material, wherein a thickness of the molded glass substrate satisfies a desired dimension and tolerance by adjusting a barrel die size, or limitations like molded, formed by molding between precision planar processing members, is a method of production and therefore does not determine the patentability of the product itself.

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

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either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al. in view of Watanabe et al. (6277465).

Takagi et al. discloses the molded glass substrate described above. Takagi et al. fail to disclose that the principal surface has flatness no greater than 3 $\mu$ m. Watanabe et al. teaches that the average surface roughness is no greater than 0.5nm (col. 1 lines 31), the maximum height is no greater than 5.0nm (col. 1 lines 31-32), and that the principal surface has a flatness no greater than 1 $\mu$ m (col. 1 line 23) for the purpose of achieving a high recording density for a surface of magnetic recording medium (col. 1 lines 11-12). Watanabe et al. teaches that the inner surface is ground for the purpose of forming an opening at a center portion of the glass substrate (col. 3 lines 56-57).

Therefore, it would have been obvious to one of ordinary skill in the art to provide Takagi et al. with a principal surface that has a flatness no greater than 1 $\mu$ m in order to achieve a high recording density for a surface of magnetic recording medium taught by Watanabe et al. (col. 1 lines 11-12).

Furthermore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Takagi et al. with an inner surface that is grounded in order to form an opening at a center portion of the glass substrate (col. 3 lines 56-57).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al. in view of Donley et al. (3660061).

Takagi et al. discloses the glass substrate described above. Takagi et al. fail to disclose that the inner surface is fire polished. Takagi et al. discloses that the inner surface is polished (col. 1 lines 22). Donley et al. teaches that a fire polished surface is stronger than a ground and polished surface of glass (col. 7 lines 64-65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Takagi et al. with a fire polished surface in order to obtain a stronger glass surface as taught by Donley (col. 7 lines 64-65).

### ***Response to Arguments***

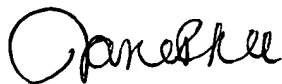
Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

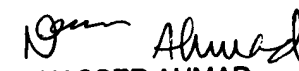
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane J Rhee whose telephone number is 703-605-4959. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Jane Rhee  
December 22, 2003



NASSER AHMAD  
PRIMARY EXAMINER